DOCUMENT RESUME

ED 365 266 HE 027 059

TITLE	Report of the Committee To Study Preparation of the Workforce. Item #7.
INSTITUTION	Illinois State Board of Higher Education, Springfield.
PUB DATE	1 Oct 91
NOTE	31p.; For a related document, see HE 027 060.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Accountability; Educational Change; *Educational Demand; Educational Improvement; Elementary Secondary Education; Employment Patterns; Higher Education; *Job Training; Labor Force; Labor Needs; *Policy Formation; Population Trends; Supply and Demand
IDENTIFIERS	*Illinois

ABSTRACT

This report examines workforce preparation in the state of Illinois within the following general areas: (1) the current and future workforce preparation needs of business; (2) higher education's role in relation to the roles of secondary education, business, labor, and government in providing workforce preparation programs; and (3) the effectiveness and responsiveness of colleges in meeting current and future workforce preparation needs. In addition, the report examines results of other studies that addressed workforce preparation, and policy directions developed by the Committee to Study Preparation of the Workforce for improving the preparation of the workforce. Specific topics include discussions of population, industry, and occupational trends; employment supply and demand; public and private sector job training providers; and the K-12 and postsecondary educational systems within the state. In addition, the report examines the challenges facing colleges and universities in seven areas: (1) basic preparation for work; (2) workplace competencies; (3) retraining to improve competitiveness; (4) opportunities in education and employment; (5) educational transitions; (6) linking education and work; and (7) accountability. Appendices list the membership of the Committee to Study Preparation of the Workforce and provide a 40-item bibliography. (GLR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Illinois State Board of Higher Education
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

ED 365 266

Item #7
October 1, 1991

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

REPORT OF THE COMMITTEE TO STUDY PREPARATION OF THE WORKFORCE

In recent years national and state attention has become focused on the preparation of the American workforce. Global economic competition, structural changes in the national and state economy, demographic shifts that significantly affect the labor force, rapidly changing technologies, and concern for the preparation of the workforce to meet these challenges have necessitated an examination of current education and training systems. Numerous studies conducted by the federal government, national associations, state organizations and agencies, and private foundations have recognized the importance and centrality of education and training to the future of the national and state economy.

In May 1990, the Illinois Board of Higher Education adopted statewide goals and priorities for Illinois higher education. Several identified higher education's role in economic development, and one specifically identified the essential role of higher education institutions in "assisting with preparation of the workforce for the state's economy." The fundamental role of community colleges in preparing the workforce was emphasized by the Illinois Community College Board in its 1990 mission and goals statement that community colleges should "promote educational programs and lifelong learning opportunities that enable individuals to achieve their full potential as productive citizens."

During the past several years, the Board of Higher Education has conducted special studies on economic development, minority student achievement, reviews and assessments of degree programs, the improvement of undergraduate education, and high school preparation and baccalaureate program admissions standards. Each of these studies addresses some aspect of public policy related to workforce preparation.

Establishment of the Committee to Study Preparation of the Workforce

The issues identified in previous studies by the Board of Higher Education, the Illinois Community College Board, and a growing number of national and state groups suggested the need for the Board of Higher Education to review the status of higher education's role in workforce preparation.

On October 2, 1990, the Board of Higher Education adopted a resolution to convene the Committee to Study Preparation of the Workforce. The Committee was charged to examine existing policies, procedures, and programs to insure that resources are effectively focused to improve workforce preparation. The Committee was asked to examine strategies for narrowing gaps between worker skills and the current and future requirements of business in Illinois. Specifically, the Committee was asked to examine:

- the current and future workforce preparation needs of business;
- higher education's role in relation to the roles of secondary education, business, labor, and government in providing workforce preparation programs; and
- the effectiveness and responsiveness of colleges in meeting current and future workforce preparation needs.

IHE 37 059

Printed on Recycled Paper

Dr. Robert English was appointed to serve as Chairman of the Committee. The membership of the Committee was composed of representatives of higher education, business, and labor and was announced on December 4, 1991 by the Chairman of the Board of Higher Education. The members of the Committee are listed in Appendix A. The broad representation of both education and employment constituencies on the Committee was designed to ensure a full discussion of current policies, programs, and procedures and to present recommendations for new or revised policies, programs, and procedures to improve higher education's contribution to workforce preparation.

The Study Process

The Committee held eight meetings from December 1990 to August 1991. Information on national and state studies related to workforce preparation, the role of community colleges in workforce preparation, and state and federal job training programs was presented to the Committee by Board of Higher Education staff and Illinois Community College Board staff. Specific information was examined on Illinois economic, demographic, and occupational demand trends which affect workforce preparation needs. Presentations were made to inform the Committee concerning the workforce preparation responsibilities of secondary education's adult, vocational, and technical education programs, and the workforce preparation studies which have been conducted by the State Board of Education and the Illinois Council on Vocational Education.

Based upon this background, the Committee members examined issues and problems encountered by business and education in training and maintaining an adequately prepared workforce. The Committee integrated the results of its deliberation and the background information into statements of the challenges faced by educators and employers. Challenges were identified and defined in the following seven areas: (1) basic preparation for work, (2) workplace competencies, (3) retraining to improve competitiveness, (4) opportunities in education and employment, (5) educational transitions, (6) linking education and work, and (7) accountability. Definitions of these challenges are presented in the last section of this report with the Committee's recommendations for addressing each area.

To confirm the Committee's definition of Illinois' workforce preparation challenges, ten hearings were held across the state with representatives of various industry and education groups. Committee members and Board of Higher Education staff met with employers and trade and industrial associations representing Illinois' manufacturing industries, health providers, and service industries including communications, utilities, banking, law, real estate, and consulting services. Hearings were held with public and private education providers and regional educational groups. Testimony as to how the workforce preparation challenges are manifested in the workplace and in the classroom was provided by over 100 participants.

Three common themes emerged during the hearings with business and education groups. First, the adequacy of basic skills preparation is a primary concern when hiring employees at every level of responsibility. Manufacturers noted that many individuals apply for jobs without the basic reading, writing, and computational skills necessary for productivity and job advancement. Service industry employers reported that it is often necessary to provide remedial writing courses to their new professional employees. Second, it was often noted that many new entrants to the workforce do not possess the personal as well as technical skills required in the workplace. Characteristics and skills such as promptness, commitment to the job, ability to work with others, and willingness to undertake new tasks are lacking in many new workers. Finally, the various constituencies unanimously endorsed the need for partnerships between all sectors of education and training and the business community. The solutions to the challenges discussed at these hearings are predicated on improved communication and collaboration between educators and employers.

The Committee incorporated the findings and counsel from the hearings into the development of its recommendations. Illinois Board of Higher Education and Illinois Community College Board staff discussed preliminary recommendations with other agencies involved with preparation of the workforce, including the State Board of Education, the Department of Commerce and Community Affairs, and the Illinois Job Training Coordinating Council.

The remaining sections of this report present the findings of the Committee on current and future workforce preparation needs, the current education and training systems in Illinois, the results of other studies addressing workforce preparation, and policy directions developed by the Committee for improving the preparation of the workforce.

Current and Future Workforce Preparation Needs

Over the last decade, the economy of the state of Illinois has been redefined. The types of jobs that are needed for economic stability and growth and the skills required to perform these jobs are changing. During the 1980s, demand for workers by manufacturing industries declined while nonmanufacturing employment increased. New economic strength for the state emerged as the service, retail and wholesale trade, and finance industries experienced job growth. In agriculture, the number of farms decreased, while the productivity of farms increased. Loss of jobs in these industries has been countered by automated and high technology operations that maintain productivity despite lower employment levels.

Not only are the jobs changing, but the workers are changing. The state's population is growing more slowly than the nation's and the total number of young people is expected to decline through the year 2010. However, the proportion of Black and Hispanic young people attaining working age will increase sharply. As the pool of young workers declines, the proportion of older workers will increase as will the number of women in the labor force. Immigration into the state continues to bring more people into the workforce who do not speak English or who have limited English proficiency.

The current and projected balance between the supply of workers trained in particular occupational skills and the demand for workers to fill specific jobs is affected by the shifts in the composition of the state's economy and significant demographic changes in the state's population.

Population Trends. The growth and distribution of the state's population directly affects the degree to which the Illinois labor force is available to established businesses or attractive to new firms and the degree to which citizens can secure employment. Data on Illinois' population are available from the 1980 Census of Population, and projected population and demographic trends are developed by the State of Illinois, Bureau of the Budget. These data are presented and analyzed in the Bureau's *Illinois Population Trends 1980 To 2025*, the Department of Commerce and Community Affairs' *Five Year Plan*, and the Illinois Department of Employment Security's *Target 1999*.

Over the past twenty years, Illinois' population growth has slowed. While the population of the nation has increased by 22 percent since 1970, Illinois' population has grown by only 5 percent. This slow rate of increase is projected to continue through the year 2000. Decreasing birthrates have contributed to the decline, as has out-migration from the midwestern and northeastern states to the southern and western parts of the country. Out-migration has persisted despite recent improvements in the Midwest's economy.

The distribution of the state's population and the concentration of population growth vary dramatically across Illinois. The suburban Chicago counties of DuPage, Kane, Lake, McHenry, and Will grew faster than the national average from 1980 to 1990. DuPage County alone generated half of the state's population growth during the period. In contrast, downstate cities either have

matched the slower overall state growth rate or have declined in population. These trends are expected to continue into the next century and to differentially affect workforce availability in various areas of the state.

Two significant and related demographic trends will greatly affect the Illinois labor force. First, in spite of the anticipated slow population growth through the year 2000, the working age population will increase almost twice as fast as the general population due to the maturation of the "baby boomers," declining birthrates, increased longevity, and the slowing rate at which young people are moving into Illinois. Between 1990 and 2010, the number of Illinois citizens below age 35 will decline, while the number above age 35 will increase. An expected 25 percent decrease in the 16 to 25 year old population will greatly reduce the number of young people available for and seeking employment. Conversely, the over-65 population is growing rapidly and is expected to increase by another 23 percent in the next twenty years, creating a significant demand for workers to meet the needs of a growing population of retired and elderly citizens.

Second, as the state's population growth slows and the number of young people declines, the workforce also is becoming more diverse in race, ethnicity, and gender. By 2010, the Hispanic population is expected to grow from 6 percent in 1980 to 12 percent of the state's population; the Black population is expected to increase from 15 percent to more than 17 percent; Asians and other races are projected to increase from 1 percent to nearly 4 percent; while the White proportion of the population is expected to decrease from 78 percent to 67 percent.

Patterns of migration among racial groups in and out of Illinois also will have a significant effect on the future growth of the workforce, with continued increases expected in the rate of out-migration of Blacks and Whites and in-migration of Hispanics and Asians. These trends will be especially evident among the young. The proportion of Black and Hispanic young people attaining working age will increase sharply, while the White population in this age group is expected to drop. Illinois, and Chicago in particular, continues to be a center for immigration from many countries. A high proportion of the state's Hispanic and Asian populations are foreign-born and immigrate at an age ready for employment and in economic need. According to a special tabulation from the 1980 Census, the most recent data available on immigration patterns, seven percent of Illinois' population--nearly one million people--are immigrants.

Over the past decade, the participation of women in the workforce has increased dramatically due to increasing opportunities for women in the workforce, growing numbers of female-headed households, and increasing needs for two incomes to meet family financial obligations. Opportunities for women are increasing not only in occupational areas in which women have traditionally been employed, but also in previously male-dominated professional and technical fields. By the year 2000, almost 60 percent of the adult women in Illinois are expected to be employed.

The growing minority and female population seeking to enter the workforce creates demand for education by a changing student population. This population requires support and services to prepare for, enter, and succeed in postsecondary education and preparation for employment. The growing number of older workers will require increasing opportunities for continuing education and retraining to learn new technologies and to fill the employment gap left by the declining numbers of young people entering the workforce. Limited English language and basic skills proficiencies among the growing number of immigrants and gaps in the literacy and skills of the native-born workforce pose challenges for employers and educators alike.

Industry Trends. The changing conditions and characteristics of the state's population and its available workforce are occurring simultaneously with shifts in the structure of the Illinois economy. Estimates of national trends in industry growth and decline during the period 1988-2000 were developed by the U.S. Department of Labor, Bureau of Labor Statistics, and are analyzed in the *Occupational Outlook Quarterly*. Estimates of current and projected industrial growth and

decline in Illinois for the period 1986-2000 are available from the Illinois Department of Employment Security, and are presented and analyzed in the Department's *Target 1999* and the Illinois Department of Commerce and Community Affairs' *Five Year Plan*.

The state's historical contributions in manufacturing and agriculture experienced substantial declines from 1980 to 1986. While Illinois lost 23 percent of its manufacturing jobs during the period, non-manufacturing jobs grew by nearly 20 percent. The job losses experienced in manufacturing have been countered by substantial job gains in the service industries of business, health, education, and social services. The retail and wholesale trade and finance industries also have experienced job growth. In agriculture, though the number of farms and the farm population have decreased, farm size and productivity have increased. Agricultural products continue to be a major source of export for the state.

From 1986 to the year 2000, employment in the nation is expected to grow at an overall rate of 15.3 percent. The largest growth is projected to occur in service industries including a wide range of health care services, business services, and retail trade companies. Together, business services such as computer and data processing services, and health services such as outpatient care facilities, are expected to account for 34 percent of the total national job growth from 1988 to 2000.

In the Illinois economy, growth is projected to occur one percent above the national rate and show more strength in the goods-producing sector than is predicted for the nation. Construction and service industries are expected to grow the fastest, well above the state average. Construction employment in special trades, general contracting, and heavy construction is projected to grow. By the year 2000, service industries are expected to provide one-third of all jobs in the state and over 40 percent of the new jobs available. Business and social services are projected to be the fastest growing industries, but business and health services are expected to contribute the largest numbers of new jobs.

Growth in Illinois manufacturing industries is expected to be slower than the overall state growth, though some new manufacturing jobs will be created through the year 2000. Growth is expected in nonelectrical and electrical machine manufacturing and supplies, chemical manufacturing, and printing and publishing. While some manufacturing industries are expected to grow more slowly than the state average, they will still be creating jobs in the state economy. Manufacturing in Illinois is responding to population declines and to changing technologies as firms become less labor-intensive, adopting automated and high technology operations that maintain productivity despite lower employment levels.

Occupational Trends. Growth and decline in occupational employment reflect the changing need for workers created by changing industrial growth patterns. Estimates of occupational demand to meet national economic growth are developed by the U.S. Department of Labor, Bureau of Labor Statistics and presented in the sources cited above. Estimates of the current and future demand for occupational employment in Illinois are developed by the Illinois Department of Employment Security and are presented in *Occupational Projections State of Illinois 1986-2000* and the sources cited above.

Nationwide from 1988 to the year 2000, technical occupations; professional specialties; and executive, administrative, and managerial occupations are expected to grow faster than the national average of 18 percent. These occupations are employed in almost every industry and most require workers who are highly skilled. Some of the fastest growing occupations in the country are expected to be health care therapists, assistants, and technicians; computer repairers and systems analysts; and securities salespersons. But this does not mean that the greatest number of new jobs will be available in these occupations. Slower growing but larger occupations such as retail salespersons and cashiers, registered nurses, general managers, and secretaries are each expected to offer over 300,000 new jobs by the year 2000. Slow growth is expected to occur for operators,

fabricators, and laborers, and declines are anticipated for agriculture, forestry, and fishing occupations.

By the year 2000, the demand for labor in Illinois will be nearly 6.2 million jobs. The total projected demand for labor includes about 866,000 new jobs expected to be created between 1986 and 2000. The majority of job openings, however, will be the result of the need to replace workers who leave existing jobs. As a result, occupations with even average rates of projected growth may offer many jobs for new workers.

The growth in the number of new jobs in Illinois will occur unequally among the four major occupational groups: white collar, blue collar, service, and agriculture/forestry/fishery. Compared with the statewide average employment growth of 16 percent, white collar and service occupations will exceed the state's average growth rate, blue collar jobs will grow below the average rate, and agriculture/forestry/fishery jobs will decline.

Examination of the occupations within each of these groups reveals two trends. First, the greatest number of new jobs will occur in the white collar group: managerial and management support jobs, professionals/paraprofessionals/technicians, marketing and sales persons, and administrative support positions. Second, the fastest rates of growth will occur in occupations requiring the most education and training.

Most occupations in the fast growing white collar group require some postsecondary education, with a postsecondary degree usually required for professional, paraprofessional, and technical occupations. Management and management support occupations such as accountants and auditors, general managers and top executives, personnel specialists, financial managers, marketing and public relations managers, and food service and lodging managers, which usually require specialized postsecondary education, will comprise nearly 10 percent of the state's total employment in the year 2000.

Service occupations in Illinois are projected to grow faster than the state average and are expected to be greatest in personal service occupations such as child care workers; protective service jobs in corrections, fire fighting, and police work; and health service jobs such as dental assistants and nursing and therapy aides.

The growth in blue collar occupations reflects growth in the states' construction industry. Construction trade occupations are expected to show the largest percent increase in the blue collar category, 21 percent, and to offer 32,000 new jobs.

Agriculture, forestry, and fishery jobs are the only category projected to decline in the state. Automation of agricultural work and a decrease in the number, though not in the size of farms, contributes to this decline.

Employment Supply and Demand. The changing population characteristics and shifts in industry growth and occupational demand could create imbalances between the supply of skilled workers and the employment demands for economic growth. Some service and trade industries will require workers for low-skill, low-paying jobs during a period of declining numbers of young workers who traditionally fill these jobs. Business, finance, health, and the growing high technology manufacturing industries will require highly skilled workers. Shortages of workers for both low- and high-skill jobs may occur.

The balance between current and projected employer demand and the supply of workers to fill jobs now and in the future is difficult to determine with precision. While the impact of workers leaving the labor force can be assessed to some degree, the extent of the movement of workers among occupations, across industries, and into and out of the state is more difficult to measure.

No standardized source of information is available which compares this information to current or projected employment data to determine the balance between available jobs and available workers.

The most consistent and measurable indicator of occupational supply is the number of people completing education and training programs. Reports developed by the Illinois Occupational Information Coordinating Committee are available to compare the current supply of graduates of education and training programs to the projected demand for workers in occupations related to their training. These reports suggest that, of the fastest growing occupations in Illinois, shortages may occur for workers in civil engineering, pharmacy, some levels of nursing, and rehabilitation therapies. The supply of teachers in the year 2000 may be a concern. By that year, 40 percent of employed teachers will reach the average age of 55 years, and the potential for large numbers of vacancies due to retirements will increase. The current supply of teachers appears to be 5 to 8 percent below the average number of annual job openings, especially in areas of special education.

The national and state employment projections indicate that occupations requiring the most education and training will grow faster than occupations with lower educational requirements, although they will not necessarily produce the largest number of new jobs. The difference between the educational requirements in fast-growing occupations and the educational proficiency of the population as a whole has led some analysts to conclude that there is a potential shortage of educated workers. The lack of educational achievement is particularly pronounced among minorities and severely limits their entry into better paying jobs. Blacks and Hispanics are currently overrepresented in occupations with the slowest growth rates and underrepresented in occupations expected to grow faster and have higher salaries.

A reported shortage of workers for entry-level jobs is expected to continue, particularly in geographic areas having low unemployment. The decline in the number of workers aged 16 to 24 will reduce the number of people available for entry-level jobs.

An analysis of the supply and demand balance for college-educated workers reveals a narrowing of the gap created in the early 1970s between the supply of college graduates and the number of jobs requiring that degree. However, the *Occupational Outlook Quarterly* reports that problems exist in the number of college graduates prepared for particular occupations. The rapid growth of jobs for technicians with postsecondary training but less than a baccalaureate degree may create a labor shortage for three reasons: the percent of high school graduates pursuing a baccalaureate degree is rising which may potentially decrease the number of high school graduates seeking technical training; a substantial number of young people do not finish high school and are unable to go on to technical training; and skill deficiencies among high school graduates may disqualify them from further training.

The Illinois Department of Commerce and Community Affairs' *Five Year Plan* suggests that Illinois' current development patterns may complicate the mismatch between available jobs and available workers. Population, business, and industry growth are high in the Chicago collar counties but the jobs resulting from this growth are often inaccessible to inner city residents. Although 80 percent of the state's population lives in urban areas, 80 percent of the state's geography is rural. These rural areas continue to experience substantial out-migration making it increasingly difficult to attract or retain businesses and fill jobs.

In summary, the shifts in population and economic structure projected to occur in Illinois demand careful attention and cooperation between educational planners and employers. The need for educated and skilled employees will grow, and the population to be trained will change. Illinois' success in attracting new businesses, retaining current businesses, and providing sustained employment for its citizens depends upon higher education's continued effectiveness in responding to these changes. Higher education and business will need to work closely together in the coming

decade to ensure that workforce preparation needs are understood and that appropriate programs are implemented in the most cost-effective manner.

The Education and Training System in Illinois

National reports in the last decade have underscored the importance of education and training to the future economic development of the nation. The 1987 report of the Hudson Institute, *Workforce 2000*, stated that demographic trends in the workforce, coupled with the higher skill requirements of the economy, would lead to increased joblessness among the least skilled and less among the most educationally advanced. Reports from the American Society for Training and Development in 1989 and 1990 stated that the majority of current and future jobs require education beyond high school, and that education, business, and government must be partners in providing this preparation. *America's Choice: high skills or low wages!* published by the National Center on Education and the Economy in 1990 further and emphatically stated the centrality of education and training to the economic health of the nation.

The task of training Illinois' labor force, including highly skilled workers, has been the joint responsibility of industry, state and federal employment training programs, and secondary and higher education.

Public and Private Sector Job Training Providers. According to *Training Partnerships: Linking Employers and Providers*, the American Society for Training and Development estimates that American employers spend about $30 billion, or one to two percent of payroll annually on formalized training for their workers. About 69 percent or $21 billion is invested in training that companies design, develop, and deliver using in-house resources. Thirty-one percent or $9 billion is expended on training that is purchased from outside providers. Of this amount, four-year colleges and universities provide about $2.9 billion dollars of training, community colleges and technical institutes about $1.4 billion, and vocational and other schools provide about $670 million. The remaining $4 billion in training is provided by community organizations; professional, trade, and labor organizations; and the private training industry.

In *The Learning Industry* by Nell P. Eurich, corporations are estimated to spend $60 billion on training of employees--not counting the time off work for these training activities. Formal and informal training and education in the military are estimated to cost $50 to $70 billion each year. The federal government is estimated to spend between $600 million to $1 billion annually on training. Although it is difficult to estimate what labor unions spend on training, the construction industry alone spends half a billion dollars a year on apprenticeship training.

Over the last 15 years, and particularly during the 1980s, federal and state legislation was passed that created or called for job training services to be provided to citizens who were unemployed, underemployed, or existing outside the economy. A directory of the services offered in Illinois, *Doorways to Jobs*, was developed by the Illinois Job Training Coordinating Council in cooperation with the Illinois Department of Commerce and Community Affairs, the Illinois Department of Employment Security, and the Illinois Department of Public Aid.

In *Doorways to Jobs*, it is estimated that in 1990 combined federal and state funds totaling over $778 million supported Illinois job training programs to help dislocated workers, displaced homemakers, high school drop-outs, unemployed veterans, people experiencing long-term unemployment, and others to find and sustain employment.

At least 16 federal laws currently support job training services to Illinois citizens, including the Social Security Act, the Federal Rehabilitation Act, the Carl D. Perkins Vocational and Applied Technology Education Act, and the Job Training Partnership Act (JTPA). In fiscal year 1989, over $436 million in federal funds were spent to administer and deliver job training and retraining

programs and related services. In 1990, state agencies which provide job training services in Illinois were expected to receive over one million additional federal dollars for workforce preparation services.

In fiscal year 1989, the state of Illinois appropriated over $342 million in addition to education funding to train and retrain the Illinois workforce. The Illinois General Assembly has passed over 18 pieces of legislation to fund job training programs across the state. The departments of Public Aid, Rehabilitation Services, Children and Family Services, Mental Health and Developmental Disabilities, the secondary schools and the Illinois community colleges are all mandated by law to deliver job training opportunities and placement services to their particular client groups. Special programs for displaced homemakers, young parents, inmates, and unemployed and under-employed workers have been established by state law. Adult and vocational education in secondary schools and community colleges are supported by state and federal funds. The Department of Public Aid combines state funds with federal support to conduct Project Chance, an employment program for welfare clients.

Businesses also are supported by state job training funds and programs. Prairie State 2000's High Impact Training Services provide state-supported customized job training for new or expanding businesses. The Department of Commerce and Community Affairs' Illinois Industrial Training Program provides retraining to help with the modernization of mature industries.

The administrative structure for the delivery of these programs is diverse. Almost 60 programs are being administered by 16 state agencies in Illinois. Much of the job training itself is subcontracted to secondary schools, community colleges, proprietary schools, or community-based organizations. The following agencies are major providers of job training programs:

The Illinois State Board of Education (ISBE) distributes funds from the Job Training Partnership Act, the Carl D. Perkins Vocational and Applied Technology Education Act, federal adult education funds, and state funds to support local educational agencies' adult, vocational, and technical education programs. Vocational education programs served over 600,000 youth and adults in high schools, vocational centers, community colleges, and other service centers during 1990.

The Illinois Community College Board (ICCB) distributes state funds to the colleges which are combined with local funds to provide occupational and adult education programs as well as liberal arts and sciences programs for transfer to baccalaureate degree programs. Forty districts and 50 colleges provided educational services to over 660,000 students in fiscal year 1989. The ICCB also receives JTPA funds for job training and technical assistance to businesses. These services include adult basic and adult secondary education, job skills development, vocational education, and programs for persons with disabilities and other special populations. Community colleges also provide training services utilizing allocations from other agencies and programs.

The Department of Commerce and Community Affairs (DCCA) administers the JTPA in Illinois. JTPA-funded programs deliver pre-employment training, remedial education, basic skills training, on-the-job-training, and other services to youth and adults through contracts with a variety of education and training providers. In fiscal year 1990, it is estimated that over 92,000 individuals in Illinois received assistance from programs funded by the JTPA. DCCA also provides for state-funded employment training programs that serve displaced homemakers, dislocated workers and farmers, and provides technical assistance and training to businesses.

The Illinois Department of Public Aid (IDPA) combines state general revenue and federal funding to deliver Project Chance, a program to help welfare clients become self-supporting in nonsubsidized jobs. Fifty-six local offices across the state served over 100,000 clients in 1989. Other IDPA employment and training programs served an additional 12,000 people.

The **Illinois Department of Employment Security** (IDES) administers the Employment Service which provides job counseling, testing, and placement to job seekers. Over 100,000 placements were made through Employment Service offices in fiscal year 1987. IDES also provides services by contract to JTPA and Project Chance clients. In 1989, 2,000 Department of Children and Family Services clients were served by Employment Service offices through Project YES (Youth Employment Services).

The **Department of Rehabilitation Services** (DORS) administers programs that promote the vocational potential of disabled people and help them to become employed. Rehabilitation plans, job training, and job placement are included. Over 86,000 people were served through these programs in 1989.

The **Prairie State 2000 Authority** was created in 1986 to fund employment programs that serve unemployed workers, workers in need of retraining, and businesses that cannot afford to retrain their workers. In 1989, 9,000 individuals and 67 businesses received these services.

Nine other state agencies provide for employment training and related services to target populations in Illinois. Each has a local delivery mechanism and its own planning, assessment, and evaluation procedures.

Elementary and Secondary Education System. In Illinois, elementary and secondary schools offer a wide variety of learning experiences. Elementary schools provide fundamental knowledge in areas necessary for the continuing development of students. Secondary schools provide coursework which prepares students for continued education in colleges and universities and for employment in a variety of occupational areas.

There are over 4,000 public attendance centers in the state offering elementary, junior high, high school, and special or other education programs. These schools are organized into 951 local school districts. An additional 1,400 nonpublic schools also offer instruction.

In 1990-91, Illinois public and private elementary and secondary schools enrolled over 2,000,000 students with 85 percent attending public schools. Approximately 73 percent of these students were enrolled in kindergarten through the eighth grade, and the remaining 27 percent were enrolled in junior and senior high school grades. Slightly over one-third of the public school enrollment consists of minority students. In 1989-90, four percent of the students in Illinois public schools had limited English language proficiency and were eligible for bilingual education. There were over 123,500 twelfth grade graduates in 1989-90.

There are 61 regional delivery systems for vocational education at the secondary level. In fiscal year 1990, public schools provided vocational coursework to 343,000 secondary and adult students, a 12 percent decline in enrollment from the previous year. Forty-seven percent of these enrollments were in programs related to business, marketing, and management; twenty-six percent in industrial technology; twenty percent in home economics; and the remainder in health, agriculture, and other occupational fields.

Postsecondary Education System. Higher education's principal contribution to workforce preparation is the fulfillment of its primary mission to educate the state's diverse population. The Illinois postsecondary education system consists of 187 degree-granting institutions which enrolled 732,830 students in fall 1990 and awarded approximately 112,000 degrees in 1990. State appropriated general funds for Illinois higher education in fiscal year 1992 total $1,642.5 million, representing the third largest category of general funds expenditure in state government behind public aid and elementary and secondary education. The state's investment in its higher education facilities exceeds $5 billion.

There are 12 public universities which together offer a full range of educational programs, including nearly 700 baccalaureate degree programs; more than 550 master's degree programs; nearly 200 doctoral programs; and first-professional degree programs in medicine, dentistry, and law. Organized research and public service are two other missions of the public universities. In the fall of 1990, over 198,000 students were enrolled in public universities, over 48,000 of these in graduate and professional programs.

The public community college system consists of 50 colleges in 40 districts which encompass the entire state of Illinois. These colleges offer programs ranging from short-term certificates to two-year associate degrees. Some associate degrees provide the first two years of study in liberal arts and science fields leading to a baccalaureate degree. Students who earn these degrees generally transfer to universities. Other associate degrees prepare students for employment in specific fields, as do specialized certificates. Associate and certificate programs are available in 240 occupational specialties in a variety of fields. Community colleges also customize degree curricula to meet specific career needs by using a combination of academic and technical courses. To effectively respond to local labor market needs, community colleges design career programs in cooperation with area business advisory councils. In several areas of study, apprenticeship training is available.

In addition to degree and certificate programs, community colleges offer developmental and remedial instruction including adult basic and adult secondary education, continuing education and personal enrichment, short-term vocational and technical training, and public service programs. Of the 352,898 students enrolled in Illinois' community colleges in the fall of 1990, 40 percent were in occupational programs. Another 39 percent were enrolled in transfer programs leading to baccalaureate degrees. Fourteen percent were enrolled in adult education coursework, and the remainder were enrolled in general studies.

In the private sector, 104 institutions are not-for-profit colleges and universities, and 21 are proprietary, or for-profit, degree-granting institutions. Among the not-for-profit institutions are multi-purpose research universities that offer educational programs through the doctoral and first-professional degree levels and residential liberal arts colleges that offer the baccalaureate degree. Limited-purpose institutions offer programs in a single field: occupational programs at the associate degree level; first-professional degrees in health sciences, theology, or law; or degrees in nursing, art, music, business, or engineering. Proprietary institutions offer occupational and professional degree programs. Over 181,000 students were enrolled in private educational institutions in fall 1990.

Higher education's role in workforce preparation differs from the target population approach of job training programs. Enrollment in college and university programs is not restricted to targeted groups identified by economic or employment status. Higher education programs provide both general education and job training rather than specific job skills or job enhancement training. This breadth of skills provided by postsecondary education enhances long-term career flexibility and mobility.

Over the years, Illinois colleges and universities have responded to the diverse needs of the state's citizens and employers for educated and skilled workers. To remain responsive to the needs of both students and employers, colleges and universities adjust the programs and services they offer and the time frames and locations in which they offer them in order to address the educational needs of older, part-time, employed, and often placebound students. The needs of employers for trained personnel in specific occupations are addressed by initiating new degree programs and by expanding the capacity of existing programs. As student and occupational demand declines, programs are terminated and the resources are reallocated to areas of greater student interest and employer demand.

Summary. Education and workforce preparation in Illinois is a complex array of legislative mandates, funding sources, administrative entities, institutions, programs, and populations to be served. This complexity, along with shifts in population and economic structure in the state, demands careful attention and cooperation between education and training providers and employers.

Efforts to coordinate the activities of these programs are ongoing. Interagency agreements between job training providers, communication efforts between education agencies and institutions, the Job Training Coordinating Council, and local education and business organizations and advisory councils help promote communication among education and training providers and business.

In addition to the Illinois Board of Higher Education's Committee to Study Preparation of the Workforce, other groups have examined the condition of the state's workforce preparation and their roles in improving the quality and coordination of training. In the last year, efforts to address workforce preparation issues have been undertaken by the Governor's Office, the Illinois Council on Vocational Education, the Illinois State Chamber of Commerce, the State Board of Education, and the Department of Commerce and Community Affairs.

Effective communication and linkages among the state and federal, public and private, education and industry sectors are essential for the delivery of education and training to meet the needs of the workers, students, and businesses who are the future of Illinois' economy.

Overview of National and State Studies Related to Preparation of the Workforce

In recent years, the Illinois Board of Higher Education has conducted studies and developed policies related to improving the preparation of the workforce. Recognizing that the fastest growing jobs of the future will require some level of postsecondary education, the state of Illinois established minimum admission standards for baccalaureate degree programs at public colleges and universities to inform high school students about the academic background required to successfully complete a postsecondary degree. The Board's Committee to Study Undergraduate Education stressed the need for articulation of community college baccalaureate transfer programs with programs of senior institutions and the need to provide broad access to and retention in higher education programs. This Committee also emphasized the centrality of basic skills and general education to all programs in higher education.

The Joint Committee on Minority Student Achievement, established by the Illinois Board of Higher Education and the State Board of Education, emphasized the high priority of increasing the number of minority students who enter and successfully complete higher education programs. Furthermore, through the Higher Education Cooperation Act, the Board of Higher Education is funding initiatives which will advance minority student achievement and improve the transfer-rates of minority students from the community colleges to senior institutions. The Board has also adopted policies which will improve the cooperation of higher education institutions with elementary and secondary schools.

In addition, the Board has supported the efforts of colleges and universities to expand educational opportunities through the provision of off-campus courses and programs. The use of telecommunications technology has the potential to increase access to such programs through sharing of courses among institutions or extension of courses to the workplace. These actions of the Board are designed to better prepare the future workforce and to retrain the existing workforce.

Others state agencies also have addressed issues related to workforce preparation. In 1990, the Governor's Task Force on Human Resource Development recommended that the standards for educational performance for all high school students should be benchmarked to the highest standards in the world. Furthermore, the Task Force stated that all students should be expected to meet these standards before continuing their education or entering the workforce. In *The State*

Plan for Implementing Education for Employment In Illinois Fiscal Years 1991-1992, the State Board of Education's policy states that public education should: a) assure that all students, whether youth or adult, attain appropriate levels of achievement in areas fundamental to their continuing development; and b) assure that all students attain a satisfactory level of achievement appropriate to either immediate employment or advanced education in preparation for later employment. In *Building Public-Private Partnerships to Improve Vocational Education in Illinois*, the Illinois Council on Vocational Education recommends that Illinois should establish statewide performance standards to evaluate education and training programs based on their success in enhancing the basic reading and mathematics skills of the workforce. Furthermore, the Council places top priority on achieving basic skills.

In *Economic Development Policy Task Force Report: A Report to Governor Jim Edgar on the Needs and Priorities of Illinois Economic Development Programs and Services*, the Illinois State Chamber of Commerce recommends the establishment by the state of an Economic Development Policy Board to oversee job training programs administered by agencies directly under the jurisdiction of the Governor's office. The report recommends that upon establishment of this Board, "the Illinois Board of Higher Education (IBHE) and the various systems under IBHE's aegis would continue their present role and relationships, but would be expected to work closely with the Economic Development Policy Board on matters of common interest in the development of human resources."

In June 1990 the Chicago Council on Urban Affairs, the Economic Development Commission of the City of Chicago, and the Civic Committee of the Commercial Club studied the funding of adult literacy, vocational education and job skills training programs in Chicago. The resulting report, *Chicago Challenge: Workforce Development*, recommends creation of a "workforce development leadership team in Chicago, a workforce development system at the state level, and a special workforce development fund at the state level."

The Committee to Study Preparation of the Workforce also reviewed a number of national studies related to workforce preparation. Among the various reports there was broad consensus that the education enterprise as it is currently configured and organized does not fully meet the needs of employers. A number of studies have held that education is not keeping pace with the changes that are currently transforming the workplace and working conditions. Further, these studies reflect a common perception that workers do not possess the basic and technical skills to keep the nation economically competitive and a sense that education is not appropriately accountable to the public. The studies are nearly unanimous in citing the need for improved interaction between education and employers. A list of the national and state studies reviewed by the Committee to Study Preparation of the Workforce is found in Appendix B.

Based upon its review of other studies and staff reports and presentations, the Committee identified seven challenges which face Illinois in developing a world class workforce: basic preparation for work; workplace competencies; retraining to improve competitiveness; opportunities in education and employment; educational transitions; linking education and work; and accountability. A synopsis of the findings of state and national studies relevant to each of these seven challenges is presented below.

Basic Preparation for Work. In *Building Public-Private Partnerships to Improve Vocational Education in Illinois*, results of a survey of Illinois business and industry indicate that the development of basic skills should be the top priority of educators. This finding is mirrored in numerous reports which have identified two key approaches to address problems related to basic work preparation. One such approach focuses on improving the current education process: setting hiring standards that result in more competent teachers; improving the curricula of teacher preparation programs; improving teacher pay and giving them the autonomy and resources they need. This approach assumes that current structures are fundamentally sound but recognizes that

improvements need to be made in certain aspects of the system, such as setting clear outcomes for the education system and providing alternative ways of learning basic skills. These changes are advocated by the National Governors' Association, the American Society for Training and Development, and the U.S. Department of Labor.

America's Choice: high skills or low wages! presents a more radical approach. This report advocates the establishment of a new educational standard to be met by all students by age 16, and proposes that "this standard should be established nationally and benchmarked to the highest in the world." This standard, or Certificate of Initial Mastery, would presumably replace the high school diploma and would be necessary before pursuing further education. The Certificate of Initial Mastery would be designed to assure employers of common competencies among all persons possessing the Certificate.

Workplace Competencies. A number of ways to improve the technical skills of the workforce have been advanced in the state and national studies including: providing better information to students about the technical competencies required on the job; increasing the involvement of business and industry personnel in designing various curricula; using business personnel to supplement the instruction of teachers in the classroom; promoting the apprenticeship system; increasing the use of cooperative work experiences; articulating secondary vocational curricula with those of the community colleges; and targeting training resources to high-demand professions. These are all methods that would seek to improve the current system of education and training for the workplace and are advocated by groups such as the American Society for Training and Development.

An alternative would utilize many of these same strategies but calls for national, standardized curricula which would be established by government, industry, and education for a broad variety of occupations. These curricula would be based on attainment of a common set of skills by age 16 and would be designed to meet the needs of the current workplace for skilled workers. These curricula would be upgraded constantly at the national level as conditions in the workplace change. One alternative, articulated in *America's Choice: high skills or low wages!*, calls for a "comprehensive system of Technical and Professional Certificates and associate degrees...for the majority of our students and adult workers who do not pursue a baccalaureate degree."

Beyond technical skills, a number of reports criticize the work-related personal skills of workers and their sense of responsibility to their employers. For example, in *Training America: Strategies for the Nation*, educators are urged "to teach future employees not only reading, writing, and arithmetic, but how to make decisions, to solve problems, to learn, to think a job through from start to finish, and get a job done with and through other people." *Building a Quality Workforce* also finds deficiencies in students' abilities in problem solving, teamwork, taking initiative, and adapting to changing circumstances in the workplace. *From School to Work* notes that since most high school students work part-time, there is an opportunity for schools to work with employers to ensure that students learn to develop skills that are not part of the formal curriculum such as good work habits and team work.

Retraining to Improve Competitiveness. There is general agreement among the various reports that (1) education and training is a joint responsibility of elementary and secondary education, higher education, business and industry, labor, and government and (2) that education and training do not necessarily precede employment but are continuous throughout the working life of employees. Additionally, although businesses spend significant amounts of money on training, this training is unevenly distributed in two respects. First, large enterprises are often able to provide in-house training while smaller businesses do not have the resources to provide such assistance. *Jobs, Growth and Competitiveness* states that "targeting workers in small- and medium-sized firms with high growth potential increases economic competitiveness." Second, training of the current workforce is often concentrated on technical and managerial personnel, while front-line

workers are receiving far less training than is needed. *Training America: Learning to Work for the 21st Century* states: "Job-related training and education is unevenly distributed among the population, with managers and professionals getting a bigger share than other types of workers, and the college-bound getting a bigger share than other types of students....The employee training system mirrors the education system. Training and employee development is concentrated among white collar and technical workers, with production and service delivery personnel receiving much less training."

For the most part, employers agree that it is their responsibility to keep their workforces current with both the organization of work and technology. The 1989 report, *Training America: Learning to Work for the 21st Century*, notes that "even though U.S. employers spend $30 billion a year on formal training, this is only enough to train 10 percent of employees." The report further notes that 40 percent of the workforce must be trained in order to see a productivity growth rate of 3 percent by 1990. Government, labor, and education can complement the efforts of employers. For example, *Worker Training: Competing in the New International Economy* suggests that Congress might expand assistance available to firms for activities such as basic skills training and vocational skills upgrading. *Training America: Strategies for the Nation* lists four factors essential to integrating human resources development into the workplace: the chief executive officer must make training a priority; staff and budget need to be assigned to the activity and the development executive must be a full member of the senior management team; line managers must be responsible for training their subordinates; and training must be easily accessible to all employees.

To keep workers' skills up-to-date, employers, educational institutions, and government must actively support the concept of life-long learning, particularly with regard to occupational skills. In *Training America: Learning to Work for the 21st Century*, the American Society for Training and Development calls on legislators to "increase support for continual learning for the employed." With fewer new employees entering the workforce, economic competitiveness will require flexibility on the part of those currently employed.

Opportunities in Education and Employment. Providing equity of opportunities in education and employment constitutes a serious challenge. In 1987, *Workforce 2000* stated that through the year 2000 in the United States "the workforce will grow slowly, becoming older, more female and more disadvantaged. Only 15 percent of the new entrants to the labor force over the next 13 years will be native white males, compared to 47 percent in that category today." *The Forgotten Half: Pathways to Success for America's Youth and Young Families* states that "young workers age 20-24 suffer extraordinary high unemployment rates: 6.8 percent for whites, 11 percent for Hispanics, and 20.3 percent for Blacks in 1988." In *Training America: Strategies for the Nation*, the American Society for Training and Development states that the disadvantaged population should have the first claim on public attention and resources. The National Governor's Association endorsed the *National Goals for Education*, which called for improved conditions and opportunities for the disadvantaged and minorities. While there is broad agreement that it is essential to capitalize on the skills and talents of the disadvantaged, minorities, and women, there are few solutions presented that do not require a reorientation of national priorities. Goals are well-developed in these reports and studies, but few practical solutions are identified.

Productive America: Two-Year Colleges Unite to Improve Productivity in the Nation's Workforce recommends that community colleges identify the special populations within each college's district; gather demographic, socio-economic and other data to determine needs; and "establish effective recruitment strategies to enroll individuals from special populations into training programs."

Educational Transitions. Improving coordination in the design and delivery of education and training by schools, college and universities, and business is hampered by too few formal efforts to articulate education and business training. *Training America: Strategies for the Nation* states that "educators [must] work with employers to strengthen the link between learning in school and

learning on the job." Without such efforts, educators have been reluctant to accept industry training as a legitimate part of the education structure of the nation.

Difficulties also exist in the smooth transition of students between education sectors. The articulation of high school vocational coursework and community college vocational coursework is far from optimal. The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 supports efforts to upgrade the content of high school vocational coursework and to facilitate entry into community college vocational coursework (commonly referred to as technical preparation or "tech-prep" initiatives). *America's Choice: high skills or low wages!* suggests that national standards and curricula should be developed for occupational education to overcome problems with the transfer of high school graduates to community college vocational programs by assuring common competencies among students.

A number of studies note that there is not a smooth transition from community college vocational programs into the workplace. They recommend that business and industry, trade associations, and labor should define a common set of skills which graduates of vocational programs would be expected to have attained. Community colleges, in conjunction with business and labor, would then design curricula to provide those skills. *America's Choice: high skills or low wages!* calls on the federal government to set standards for various curricula. *Excellence at Work: The Issues* states that "to ensure employers that new workers are prepared for work and to facilitate employees' success and productivity, education and training programs will need to develop methods to integrate school and training with the world of work. State leaders will need to examine new training and education models that combine education with workplace experiences such as apprenticeship models of training or business internships."

Linking Education and Work. There is general agreement among the studies that education and business must increase their interaction. The National Governors' Association; the American Society for Training and Development; the U.S. Departments of Labor, Education and Commerce; the National Center on Education and the Economy; and the Illinois State Chamber of Commerce have all recognized this fundamental need in various reports. Without the active involvement of business in the design and delivery of curricula, educators will not provide employers with the types of workers needed. For example, *Training America: Strategies for the Nation* states the need for such cooperation. This report urges educators to work with employers to "strengthen the link between learning in school and learning on the job." This report recommends that schools should involve employers in curriculum development, while other studies suggest that employers and educators could cooperate in areas such as curriculum advisory committees, cooperative work experiences, personnel exchanges, curriculum sharing, and continuing education.

Accountability. Accountability in education and training efforts has been a common theme in the studies of workforce preparation for several years. Providers of education and training, both school-based and industry-based, are accountable in a number of ways. Perhaps foremost, they are accountable to the learner. They also are accountable to the groups paying for the cost of the education: the taxpayers or the stockholders. Educators and trainers also are accountable to the subsequent providers of education, whether they be schools, colleges and/or business training programs. *Training America: Strategies for the Nation* states: "Accountability between schools and employers is a two-way street. To be full partners in American education, employers must communicate new knowledge and changing skill requirements as they arise in the workplace; give more weight to educational attainment and achievement in hiring decisions; and work with educators to develop and provide 'learning with earning' curricula."

Perhaps the most common solution suggested to insure accountability is the increased use of assessment measures. Some studies have called for restructuring the entire education system based on national standards of basic skill and technical proficiency. Whether modifications to the current education system are adequate to ensure improved educational performance, or whether

fundamental restructuring of the education system is needed, there is wide agreement that each educational institution must be accountable for the skills and competencies possessed by its students and graduates.

Policy Directions for Improving the Preparation of the Workforce

The Committee to Study Preparation of the Workforce recognizes that achieving the goal of preparing all students at all levels of education for productive lives and careers will require cooperative efforts between higher education and elementary and secondary education, as well as other providers of education and training, and business itself.

To aid in defining the special contributions of colleges and universities in preparation of the workforce, the Board of Higher Education's Committee to Study Preparation of the Workforce identified seven challenges that must be addressed. These challenges were defined in the following areas: (1) basic preparation for work, (2) workplace competencies, (3) retraining to improve competitiveness, (4) opportunities in education and employment, (5) educational transitions, (6) linking education and work, and (7) accountability. These challenges are defined below to provide the context for the Committee's recommendations of policy directions and priorities.

In developing its recommendations, the Committee recognized that postsecondary institutions have diverse missions and thus make different contributions to preparing the workforce. When the Committee's recommendations refer to "postsecondary institutions" or "colleges and universities" they are calling upon all institutions--two-year colleges and senior institutions, as well as public, private, and proprietary institutions--to make contributions that are appropriate to their missions.

Likewise, the Committee recognizes that many efforts to improve preparation of the workforce are currently underway, and have been for many years. These efforts are clearly not limited to colleges and universities, but involve elementary and secondary schools, unions, trade and professional associations, and training programs offered by business and the military. The many public and private sector providers of education and training emphasize the need for colleges and universities to actively pursue partnerships to improve the preparation of the workforce.

The Committee's recommendations are intended to reinforce many efforts that are already underway. At the same time, the Committee is calling for new initiatives.

Basic Preparation for Work

Challenge: Too many of Illinois' youth and adults are not adequately prepared for further education or employment.

In Illinois, 34,000 students drop out of high school annually. Forty million new workers will join the American workforce between 1988 and the year 2000, and employers report that many new workers lack basic academic skills. Low levels of basic skills such as reading, writing, computation, communications, problem-solving ability, and learning skills among new entrants to the workforce, the current labor force, and among the under- and unemployed are an impediment to productivity.

The development of basic skills must be a high priority because basic skills are the foundation of all further educational and retraining endeavors. Statewide surveys and roundtable discussions with business representatives conducted by the Illinois Council on Vocational Education confirm that high priority must be assigned to basic skills development. At the same time, basic academic skills must be taught in a way that is functional to the needs of the learner, whether that be entry into the workplace or as a foundation for training, retraining, or further education.

Too often remedial, Adult Basic Education (ABE), Adult Secondary Education (ASE), and English as a Second Language (ESL) programs are viewed as peripheral to the primary missions

of colleges and universities. This tendency must be changed. Colleges and universities must strive for excellence in remedial, ABE, ASE and ESL programs; these programs must be adequately funded and must utilize the best instructional resources available.

In order to ensure a high level of basic skills competency in the workforce, the Committee to Study Preparation of the Workforce recommends that:

1. **The Illinois Board of Higher Education (IBHE), the Illinois Community College Board (ICCB), the State Board of Education (SBE), colleges and universities, and elementary and secondary schools ensure that the development of basic skills is the first priority in preparing students for work as well as for further education.**

2. **Adult Basic Education (ABE), Adult Secondary Education (ASE), and English as a Second Language (ESL) instruction be of highest quality and effectively serve students. This can be achieved by ensuring an institutional commitment to these programs, assigning a core of well-qualified faculty to them, providing counseling and tutoring, and making available transportation and child care services for students. IBHE and ICCB will emphasize the review of ABE, ASE, and ESL as part of the program review process and will make budgetary adjustments based on the findings of these reviews.**

3. **In teaching basic skills, postsecondary institutions stress the application of these skills in the workplace so that skills are not viewed by students as abstractions, but as tools for problem solving in employment settings.**

4. **Since community colleges provide the majority of instruction for adults, the IBHE support the reassignment of administrative responsibility for state and federal adult education programs from the SBE to the ICCB.**

5. **State and federal adult education funds administered by the SBE be allocated to providers of ABE, ASE, and ESL programs in proportion to the amount of instruction they offer in these programs.**

6. **The ICCB work with other state agencies that have responsibility for administering adult education and literacy programs to achieve better coordination of these programs at the state and local levels.**

7. **The ICCB establish several "Centers of Learning Excellence" that demonstrate and disseminate the effective use of technology, computer-assisted instruction, and innovative teaching methods in basic skills instruction. Universities should contribute their expertise and support in the establishment and operation of these centers.**

8. **The ICCB work with the SBE and universities to effectively utilize clearinghouses to evaluate, acquire, and disseminate ABE, ASE, and ESL software and instructional materials.**

9. **Community colleges and universities assist businesses in basic skill assessment and in utilizing computer software and instructional programs to upgrade the basic skills of employees.**

Workplace Competencies

Challenge: Productivity is limited by deficiencies in both technical and interpersonal skills.

Deficiencies are often found in workplace competencies such as the ability to interact effectively with others, to accept and share responsibility for work, and to meet employment commitments. At hearings across the state, employers testified to the Committee that these competencies are essential in the workplace and emphasized the need to communicate this to current and prospective workers and to education and training providers.

The absence of highly developed technical skills in workers is a direct impediment to productivity improvement, particularly as technologies become increasingly complex. Some of the fastest growing occupations in the nation and in Illinois are technical occupations which require some amount of postsecondary training. Colleges and universities must be able to offer training on the leading-edge of emerging technologies. This is frequently difficult if expensive equipment and facilities are required, or if low enrollments are experienced in the initial stages of technology development. If colleges and universities are to respond in cost-effective ways, it will be necessary to share resources and strategically develop programs in new technologies on a regional basis.

In order to respond effectively to the competencies needed in the modern workplace, the Committee to Study Preparation of the Workforce recommends that:

10. **The development of workplace competencies--including such qualities as reliability, leadership, and teamwork--be reinforced in curricula, in career counseling, and by faculty as an integral part of the instructional process. These competencies should be reflected in student evaluations.**

11. **Regional or statewide "Centers of Emerging Technology" be established at selected community colleges and universities. These centers will be models for the curricular standards, faculty qualifications, and facility and equipment requirements necessary to educate and train in areas of new technology. The centers will be designed by a committee of individuals from business, labor, and education which will recommend to the ICCB and the IBHE where the center(s) should be located and the consortial arrangements that should be established to ensure cost-effective operations.**

12. **The IBHE continue to support the Technical Preparation (Tech-Prep) initiative and encourage community colleges to seek state funding as well as federal funding under the Carl D. Perkins Vocational and Applied Technology Education Act to actively engage school districts to design and implement programs which coordinate what is taught in high school with what is taught in the community colleges.**

Retraining to Improve Competitiveness

Challenge: Efforts by business and industry to improve competitiveness will be hampered unless the skills of management and labor are upgraded to include new technologies and work strategies.

While the number of young people is declining, the Department of Employment Security estimates that in Illinois almost five million people, over 80 percent of the current workforce, will still be employed in the year 2000. As industries adopt new standards and production methods to improve their competitiveness in an increasingly international economy, the work environment will be based on new technologies, new ways to organize work, and new knowledge and skills. Retraining in new technologies and work strategies must increasingly be directed toward all members of the current workforce. The American Society for Training and Development states

that education and training in new technologies and productivity methods will be the competitive advantage in the new economy.

The retraining needs of businesses are varied, including training in advanced management methods and concepts, technical skill upgrading, and adult literacy. Likewise, the providers of retraining programs are diverse, and include not only colleges and universities but also programs offered by trade and professional associations, state and federal retraining programs, and in-house programs designed and offered by individual businesses. Businesses need timely information about the availability of appropriate education and training programs. Further, better coordination of education and training programs is needed across providers to assure that resources are utilized effectively. Community colleges should coordinate the assessment of retraining needs within their districts and work with other providers to assure that these needs are efficiently addressed.

In their efforts to adapt to rapidly changing technologies, businesses are increasingly encountering barriers to skill upgrading due to low levels of literacy among their current employees. Concerning its study *Literacy in the Work Force*, the Conference Board states that the full extent of work force illiteracy is not known, but that it is a "softly ticking time bomb" in corporate America. Community colleges, with their experience and expertise in delivering remedial, ABE, and ASE programs, have an important role to play in addressing worker literacy problems.

Perhaps the most important means for retraining the workforce will be to utilize telecommunication technologies to deliver in-house educational and training programs. The use of telecommunications systems to address a wide range of instructional needs is currently being examined by the Board of Higher Education's Committee to Study Underserved Areas.

In order to upgrade the skills and knowledge of the current workforce, the Committee to Study Preparation of the Workforce recommends that:

13. **Greater priority be placed on retraining the current workforce by working with employers to identify needs for retraining and responding to those needs at convenient times and locations. Colleges and universities should seek to improve retraining programs based upon the evaluations of programs by employers and employees.**

14. **The ICCB and IBHE work with the SBE and other state agencies that have a responsibility for training programs to assure that state and federal funds are used effectively, and that information about education and training programs is disseminated in a cost-effective way.**

15. **Community colleges take the initiative to assess retraining needs within their districts, to work in concert with universities and private sector providers to address retraining needs, and to share resources (including faculty, facilities, and equipment) with other providers of training services. Community colleges should work with other providers of retraining programs to establish "one-stop" clearinghouses to assist businesses in accessing training programs.**

16. **The ICCB establish an award for colleges and universities that meet high standards in addressing training and retraining needs.**

17. **The IBHE, based upon the work of its Committee to Study Underserved Areas, establish a statewide telecommunications-based instructional delivery system that can provide cost-effective continuing education and training programs by linking colleges and universities to each other and to the workplace.**

Opportunities in Education and Employment

Challenge: Better access to education and employment opportunities must be achieved for Illinois' diverse and rapidly changing population.

The population of the state, and thus its workforce, is growing slowly. The proportion of young people is declining, and the proportion of minorities composing the labor force is increasing. Immigration of workers with low educational attainment and limited English language proficiency into the state's labor pool is expanding. Sixty percent of the state's women are expected to be employed outside the home in the next decade.

Increasing demands for a skilled workforce require that Illinois' diverse population be provided opportunities for education, training, and employment. Students and workers who are older, minority, immigrant, female, disabled, economically disadvantaged, displaced, or unemployed require new educational strategies and employment policies to gain and sustain meaningful employment in the changing workplace. Many studies, including the *National Goals for Education*, call for improving the extent and quality of minority participation in education and employment. The health of Illinois' economy and its quality of life are directly tied to its level of success in addressing the educational needs of the state's diverse populations and preparing them for productive lives and careers.

Colleges, universities, and businesses must actively recruit minorities and immigrants and provide them counseling, mentoring, and a supportive environment in learning experiences and in the workplace. Colleges and universities must reverse the decline in the number of minority teachers and form active partnerships with elementary and secondary schools that enhance the success of minority students at all levels of education.

To enhance opportunities in education and employment, the Committee to Study Preparation of the Workforce recommends that:

18. **Colleges and universities in partnership with businesses provide counseling, financial assistance, mentoring, and a supportive environment to assure the success of underrepresented groups in learning experiences and in the workplace. The IBHE's annual "Report on Underrepresented Groups" will incorporate an evaluation of goals and strategies to improve the preparation for work of underrepresented groups and will provide descriptions of exemplary programs to prepare underrepresented groups for employment.**

19. **The IBHE place high priority on awarding Higher Education Cooperation Act (HECA) Minority Achievement grants which will increase the number of students from underrepresented groups in elementary and secondary teacher training programs. It is imperative that the decline in the number of minority teachers be reversed.**

Educational Transitions

Challenge: There are discontinuities in the design and delivery of education and training by schools, colleges and universities, and businesses.

The increasing need for remediation in the classroom and for basic skills instruction in the workplace suggests that transitions across education levels and providers are not effective. Educational achievement at the earliest levels is critically important. Improvements are needed in the transition from secondary school to postsecondary education to ensure that students complete programs and succeed in gaining the skills needed in the workplace. Programs need to build upon existing skills and knowledge, whether these skills are acquired in educational institutions or in the

workplace. The goals of the Governor's Task Force on Human Resource Development further confirm the need for articulation among all public and private education and training providers.

Education in community colleges and universities should build more effectively upon prior industry training and experience. The Program on Noncollegiate Sponsored Instruction is an effort of the American Council on Education whereby professors from accredited institutions of higher education evaluate industry training courses and assign an appropriate discipline, course level, and credit hour value to the course. Higher education institutions may then grant credit toward a degree for completion of the industry training.

Methods need to be developed to assess work experience and evaluate business-sponsored training for credit toward educational programs. Students need career counseling and up-to-date information on career options and expectations to enhance their ability to prepare for work.

In order to facilitate successful transitions from education to work and from work to further education, the Committee to Study Preparation of the Workforce recommends that:

20. **In view of the importance of early educational achievement and the tendency for educational deficiencies to accumulate, colleges and universities continue to support elementary and secondary schools through joint efforts to strengthen the preparation of students for further education and employment.**

21. **Higher education broaden educational options for students. Qualified high school students should have opportunities to enroll concurrently in specialized or advanced courses offered by community colleges and senior institutions and to receive appropriate advanced placement credit at the postsecondary level. The ICCB and SBE should work together to remove constraints related to teacher certification and financing policies and to build opportunities for concurrent enrollment into Tech-Prep programs.**

22. **Colleges and universities award college credit for work-based learning that is equivalent to college courses by utilizing guidelines for portfolio assessment and examinations such as the College Level Examination Program (CLEP) and the Guide to Evaluation of Educational Experiences in the Armed Forces.**

23. **Colleges and universities better integrate into their programs what is learned on the job. The IBHE should promote the evaluation of business training programs for postsecondary credit based upon the American Council on Education's Program on Noncollegiate Sponsored Instruction (PONSI), and work with the private sector to develop consistent standards for awarding credit for work-based learning.**

24. **Community colleges support career advancement opportunities by developing advanced certificate programs in appropriate occupational fields and working with universities to develop baccalaureate capstone programs.**

25. **The IBHE and ICCB continue to promote the improvement of educational programs based upon insights gained through systems that monitor student progress; namely, the High School Feedback System, an Alumni Follow-Up System, and an Employer Follow-Up System.**

<u>Linking Education and Work</u>

Challenge: Business and education have not adequately coordinated their efforts to ensure that what is taught in the classroom is relevant in the workplace and that students are prepared with the skills and work habits needed for lifelong learning and employment.

Education, business, labor, and government all have a role in the development of a well-prepared workforce. A lack of communication and coordination among diverse providers of education and training can result in the unnecessary duplication of services and inefficient use of limited resources in business and education. Colleges and universities must form effective partnerships with businesses in developing and delivering educational programs.

Faculty and teachers must be well prepared to teach basic academic skills and job skills that are needed in the workplace. Higher education's greatest overall contribution to improved preparation of the workforce will be to graduate outstanding elementary and secondary teachers.

Rapidly changing technologies and new job requirements must be understood by colleges and universities and integrated into classroom instruction. The Committee concurs with the findings of the U.S. Departments of Labor, Education, and Commerce in *Building a Quality Workforce* that education and business must be mobilized to capitalize on their comparative strengths and advantages. Efforts to directly involve students and faculty in the workplace through cooperative programs with business are needed to increase the relevance of education to work and to communicate knowledge and skill requirements to students and faculty.

In order to establish effective linkages between education and work, the Committee to Study Preparation of the Workforce recommends that:

26. **Colleges and universities assure that graduates of teacher education programs are able to provide high quality instruction in the essential learning areas identified in "State Goals for Learning" and "Learning Outcomes for College-Bound Students." Higher education's most important contribution to educational achievement and workforce preparation is to ensure that elementary and secondary schools are able to hire well-qualified teachers.**

27. **Occupational programs offered by community colleges include a work-based learning experience in the curriculum.**

28. **The IBHE utilize the Illinois Cooperative Work Study Program authorized by P.A. 87-513 to expand work-based learning experiences for students.**

29. **The IBHE and ICCB support the SBE's Vocational Instructional Practicum (VIP) Program to provide business-based internships and training programs to vocational faculty at both the secondary and postsecondary levels. Further, the IBHE and ICCB should support the expansion of the VIP Program to include internships and training for academic faculty at the secondary and postsecondary levels.**

30. **Colleges and universities prepare counselors to fully understand employment options and provide opportunities for counselors to keep up-to-date with job requirements by expanding contacts, including on-site observations, with private sector employers. Counselors must be well prepared to inform students about coursework that is relevant to different career options.**

31. **A program be established to encourage businesses to develop partnerships with college and university departments to achieve workforce preparation goals by providing access to state-of-the-art equipment, by making personnel available to serve as adjunct faculty, and by providing internship opportunities and career counseling to students.**

Accountability

Challenge: The priorities of the state's education and training system need to be defined and its results regularly monitored.

Training and educational needs are increasing while private and governmental resources to address these needs are limited. As a consequence, educational and training activities must be carefully targeted and efficiently operated. It is a joint responsibility of schools, colleges and universities, job training providers, employers, and governmental agencies to establish priorities, develop programs that are responsive to these priorities, evaluate their results, and expedite program improvements when necessary.

Colleges and universities need to expand systems for assessing student progress and performance. The results should become an integral part of program reviews conducted by colleges and universities and thereby a basis for implementing program improvements and refocusing priorities. These systems should also provide the basis for informing employers and the public of results.

Students and employers should be assured that educational and training programs will deliver the knowledge and skills stated in their objectives. Colleges and universities should carefully define and guarantee knowledge and skill objectives which are measurable and verifiable. Program-specific definitions and guarantees should be developed by each college and university.

To ensure accountability for the results of educational and training programs offered by colleges and universities, the Committee to Study Preparation of the Workforce recommends that:

32. **The High School Feedback System for communicating information about student progress and performance to secondary schools be continued and refined based on consultation with the SBE and secondary school principals, teachers, and counselors.**

33. **The Alumni Follow-up System to obtain information about the employment and satisfaction of former students be continued by community colleges, and a similar system, being designed in cooperation with senior institutions, be implemented.**

34. **An Employer Feedback System be developed that obtains information from employers about the progress and performance of former higher education students.**

35. **Information from the above systems for monitoring student progress be incorporated in regular college and university program reviews along with campus-based student assessment systems recommended by the IBHE's Committee on the Study of Undergraduate Education, and be used as a basis for making program improvements, determining how well programs are addressing labor market needs, and informing potential students and constituents about program outcomes.**

36. **Accountability systems and information developed by higher education be better coordinated with accountability systems developed by the SBE, including the Illinois Goal Assessment Program, the Carl D. Perkins Vocational and Applied Technology Education Act Performance Standards, and the School Recognition System authorized by P.A. 87-0559. The IBHE, ICCB, and SBE should cooperate in analyzing data from these systems to achieve program improvements as well as better accountability for performance.**

37. **Colleges and universities clearly define and guarantee that graduates possess basic reading, writing, and computational skills and provide upgrading courses, tuition free, to any graduate who does not possess these basic skill competencies.**

38. **Colleges and universities clearly define specific workplace competencies that will be acquired by graduates of a degree or certificate program and provide upgrading courses, tuition free, when employers identify graduates who do not possess measurable or verifiable competencies.**

APPENDIX A

COMMITTEE TO STUDY PREPARATION OF THE WORKFORCE

Dr. Robert J. English, Committee Chairman
Member, Illinois Board of Higher Education

Dr. Richard C. Becker
President
Illinois Benedictine College

Dr. Nelvia Brady
Chancellor
City Colleges of Chicago

Mr. Blouke Carus
Carus Corporation

Mr. Dan Cosgrove
Education and Research Director
Illinois AFL-CIO

Mr. Len Dominquez
Principal
Eli Whitney School

Dr. Walter Franke
Director, Institute of Labor and
Industrial Relations
University of Illinois at Urbana-Champaign

Dr. Leo Goodman-Malamuth, II
President
Governors State University

Mr. Russ Hamm
Dean of Instruction
College of Lake County

Mr. Robert Hammer
Corporate Vice President and Director
of Strategic Personnel Management
Motorola, Incorporated

Ms. Mary Rose Hennessy
Senior Vice President
Management Association of Illinois

Ms. Jacqueline E. Henning
President
Valley Industrial Association

Mr. Craig Kennedy
President
Joyce Foundation

Ms. Adrienne Kirkeby
Director, Corporation Education
Illinois Bell

Ms. Miriam Lugo-Gonzalez
Member
Illinois Community College Board

Ms. Janice Parker
President
Taylor Business Institute

Dr. Joseph C. Piland
President
Highland Community College

Ms. Myra Polston
Student Trustee
Belleville Area College

Dr. J. D. Ross
Dean of Career and
Instructional Services
Joliet Junior College

Mr. Harold R. Sandberg
Chairman of the Board
Alfred Benesch and Company

Mr. Gerald W. Schmidt
Training and Public Affairs Manager
Caterpillar Tractor Company

Mr. John M. Schultz
Member
Illinois Community College Board

Dr. Robert Sheets
Director of the Human Resource
Policy Program
Center for Governmental Studies
Northern Illinois University

Mr. David Stover
Executive Director
Illinois Association of
Rehabilitation Facilities

Dr. Rance Thomas
Professor of Sociology
and Criminal Justice
Lewis and Clark Community College

Dr. Thomas K. Thomas
President
Illinois Central College

Dr. John Washburn
Chair, Vocational Education Studies
Southern Illinois University

Mr. Robert Wierman
President and CEO
Methodist Medical Center

APPENDIX B

BIBLIOGRAPHY

THE COMMITTEE TO STUDY PREPARATION OF THE WORKFORCE

America and the New Economy: Put Quality to Work, Train America's Workforce, American Society for Training and Development, 1990

America's Choice: high skills or low wages!, National Center for Education and the Economy, 1990

Assessing the Impact of Education and Workforce Preparation Programs on Illinois' Efforts to Stimulate Economic Development, Illinois Commission on Intergovernmental Cooperation, 1988

Building a Quality Workforce, U.S. Departments of Labor, Education, and Commerce, 1988

Building Communities: A Vision for a New Century, The Commission on the Future of Community Colleges, 1988

Building Public-Private Partnerships to Improve Vocational Education in Illinois, Illinois Council on Vocational Education, 1991

Chicago Challenge: Workforce Development, Chicago Council on Urban Affairs, Civic Committee of the Commercial Club, and Economic Development Commission of the City of Chicago, 1991

Cross Talk: The Public, the Experts, and Competitiveness, Business-Higher Education Forum and the Public Agenda Foundation, 1991

Doorway to Jobs: A Directory of Job Training and Related Services in Illinois, Illinois Job Training Coordinating Council, Illinois Department of Commerce and Community Affairs, Illinois Department of Employment Security, and Illinois Department of Public Aid, 1990

Economic Development Policy Task Force Report: A Report to Governor Jim Edgar on the Needs and Priorities of Illinois Economic Development Programs and Services, Illinois State Chamber of Commerce, 1991

Educating America: State Strategies for Achieving the National Education Goals, National Governors' Association, 1990

Excellence at Work: The Issues, National Governors' Association, 1990

Five Year Plan 1990-1995, Illinois Department of Commerce and Community Affairs, Governor's Office of Planning, and the Economic Development Subcabinet, 1990

Focus: Beyond High School: The Transition to Work, Educational Testing Service, 1990

The Forgotten Half: Pathways to Success for America's Youth and Young Families, Grant Foundation, 1988

From School to Work, Policy Information Center, Educational Testing Service, 1990

Governor's Task Force on Human Resource Development (January 1991 draft)

Illinois Population Trends 1980 to 2025, State of Illinois, Bureau of the Budget, 1987

Jobs, Growth and Competitiveness, National Governors' Association, 1987

The Learning Enterprise, American Society for Training and Development and U.S. Department of Labor, 1989

The Learning Industry: Education for Adult Workers, Nell P. Eurich, The Carnegie Foundation for the Advancement of Teaching, 1990

Lifelong Learning Trends: A Profile of Continuing Higher Education, National University Continuing Education Association, 1990

Literacy in the Work Force, The Conference Board, 1990 (as reviewed in the October 11, 1990 edition of "Vocational Training News")

Master Plan for Employment and Education, Governor's Office of Planning (June 1990 draft)

National Goals For Education, National Governors' Association, 1990

Occupational Outlook Quarterly, U.S. Department of Labor, Bureau of Labor Statistics, Fall 1989, Spring 1990, Fall 1990

Occupational Projections: 1986-2000, Illinois Department of Employment Security, 1990

Policy Perspectives-Workplace Competencies: The Need to Improve Literacy and Employment Readiness, U.S. Department of Education, 1990

Preparing for Employment in the 1990's, Willard R. Daggett, New York State Education Department, 1990

Productive America: Two-Year Colleges Unite to Improve Productivity in the Nation's Workforce, The National Council for Occupation Education and the American Association of Community and Junior Colleges, 1990

The State Plan for Implementing Education for Employment In Illinois: Fiscal Years 1991-1992, Illinois State Board of Education, 1991

Target: 1999, A Preliminary Look at the Composition of the Illinois Labor Force in the Year 1999, Illinois Department of Employment Security, 1990

Toward a World-Class Workforce, Illinois Council on Vocational Education, 1991

Training America: Learning to Work for the 21st Century, American Society for Training and Development, 1989

Training America: Strategies for the Nation, American Society for Training and Development and U.S. Department of Labor, 1989

Training Partnerships: Linking Employers and Providers, American Society for Training and Development and U.S. Department of Labor, 1990

Undereducated Uncompetitive USA: Report to R.D. Kennedy, Chairman and Chief Executive Officer, Union Carbide Corporation, Corporate Task Force on Education, 1989

White House Conference on Productivity: Report to the President, 1984

Worker Training: Competing in the New International Economy, Congress of the United States, Office of Technology Assessment, 1990

Workforce 2000, Hudson Institute, 1987